This question paper contains **2** printed pages]

BT—23—2016

FACULTY OF COMPUTER STUDIES

M.Sc. (SE) (Second Year) (Third Semester) EXAMINATION

OCTOBER/NOVEMBER, 2016

(CBCS Pattern)

SOFTWARE ENGINEERING

(Fuzzy System and Artificial Neural Network)

(Friday, 25-11-2016) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— All questions are compulsory.

1. Attempt any *three* of the following : 15

   (*a*) Explain Boltzmann machine.

   (*b*) Explain structure of expert system.

   (*c*) Explain fuzzy equivalence relation.

   (*d*) Explain fuzzy neural network.

   (*e*) Explain reinforcement learning.

2. Attempt the following (any *three*) : 15

   (*a*) Explain Extension principle.

   (*b*) Explain Hopfield network.

   (*c*) Explain perceptron learning rule.

   (*d*) Explain structure of Artificial Neuron.

3. Attempt the following (any *three*) : 15

   (*a*) Explain Neural Network models.

   (*b*) Explain Fuzzy Union.

   (*c*) Explain Fuzzy Intersection.

   (*d*) Explain Backpropagation learning Algorithm.

P.T.O.

4. Attempt the following (any *three*) : 15

(*a*) Explain types of learning.

(*b*) Explain delta learning rule.

(*c*) Explain Binary relations on single set.

(*d*) Explain Fuzzy Neuron.

5. Write short notes on (any *three*) : 15

(*a*) Fuzzy compatibility relation

(*b*) Character Recognition

(*c*) Biological Neuron

(*d*) Fuzzy complement

(*e*) Alpha-cuts and its properties.

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